

Second review of 'Modelling ocean melt of ice mélange at Greenland's marine-terminating glaciers'

Jain et al.

Date: 25 June 2025

Assessment: Minor revisions

Reviewed by: Erwin Lambert

I thank the authors for their extensive revision addressing all my remarks appropriately. In particular, I appreciate the additional sensitivity runs to the iceberg fraction which must have been quite a bit of work. To my taste, this revised manuscript conveys the author's results more clearly and convincingly.

Altogether, I consider this manuscript to be a high-quality contribution to *The Cryosphere* and recommend acceptance after minor revisions. Note that the remaining comments I have are very minor and should be easy to address.

Minor comments

Throughout the paper, the ambient or restoring temperature is referred to as initial temperature. As in my previous review: this appears to be inconsistent with your statement that initial conditions are irrelevant (l.130-134). I suggest the authors ctrl+F on 'initial' starting at this statement, and reconsider all following mentions whether this is the most appropriate term. Particularly Sec. 3.2.2 is titled 'ambient temperature', while the authors still refer to this as the initial temperature.

l. 368 The velocities appear to show a minimum for $\lambda = 0.4$, with a peak at both 0.2 and 0.6. My impression is that a low iceberg density facilitates a shallow flow between the icebergs, and a high density facilitates a relatively continuous flow along the bottom of the icebergs. I suggest the authors revise this statement.